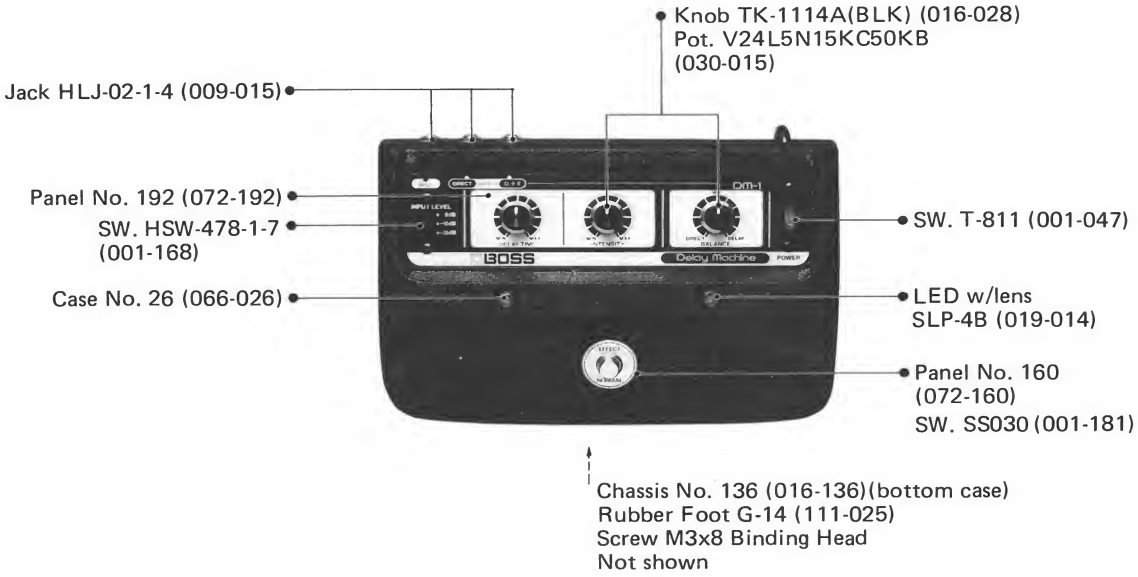
BOSS DM-1 SERVICE NOTES

SPECIFICATIONS

Power consumption	3W
Controls	Delay time (25—500ms continuous), (Balndwisdth: 10K—1KHz) Intensity, Balance
Switches	Power, Input Level Selector, (0/—15/—35dB), Normal/Effect Selector
Others	Power Pilot Lamp, Effect/Normal Indicator
Input impedance	220KΩ
Output load impedance	Over 600Ω
Gain	UNITY 1
S/N ratio	Better than 80dB
Dimension	260(W)x64(H)x180(D)mm 10.2(W)x2.5(H)x7.1(D)in
Weight	1.8kg, 3.9lbs.



PARTS LIST

066-026	Case NO.26
061-136	Chassis NO136 (cover)
072-192	Panel NO.192
072-176	Panel NO.160 (E/N)

SWITCHES

001-047	T-811 power
001-181	SS030 push
001-168	HSW-478-1-7 slide
016-028	Knob TK-1114A (Blk)
009-015	Jack HLJ-02-1-4
151-031B	PCB Assy ET-31B
052-313B	PCB less parts
111-025	Rubber Foot G-14

ICs

020-087	R5101 CCD
020-083	TC-4016P
020-084	TC4069P
020-041	TC-4013P
020-064	μPC-4558C

TRANSISTORS

017-010	2SD234-O
017-022	2SB434-O
017-021	2SC900-F
017-012	2SA733-Q
017-014	2SK30A-Y FET
017-091	2SK30A-O FET

DIODES

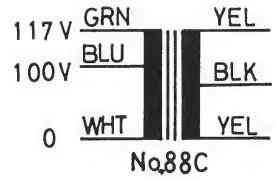
018-014	2S2473 or 1S1588, 1S1555
018-022	1N4003
018-085	RD13EC or 05Z13U
019-014	SLP-4B LED w/lens

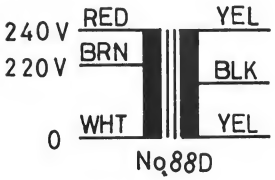
POTENTIOMETERS

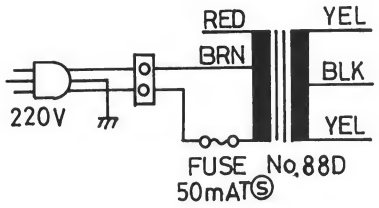
030-015	V2415N15KC50KB
030-489	CR19R 1K trim.
030-463	SR19R 4.7K trim.
030-467	SR19R 22K trim.
030-469	SR19R 47K trim.
022-088C	Power Transformer 100/117V
022-088D	Power Transformer 220/240V
008-023	Fuse SGA 0.25A 100/117V
008-059	Fuse CEE 200mA 220/240V
008-053	Fuse CEE 50mA Prim. 220/240V

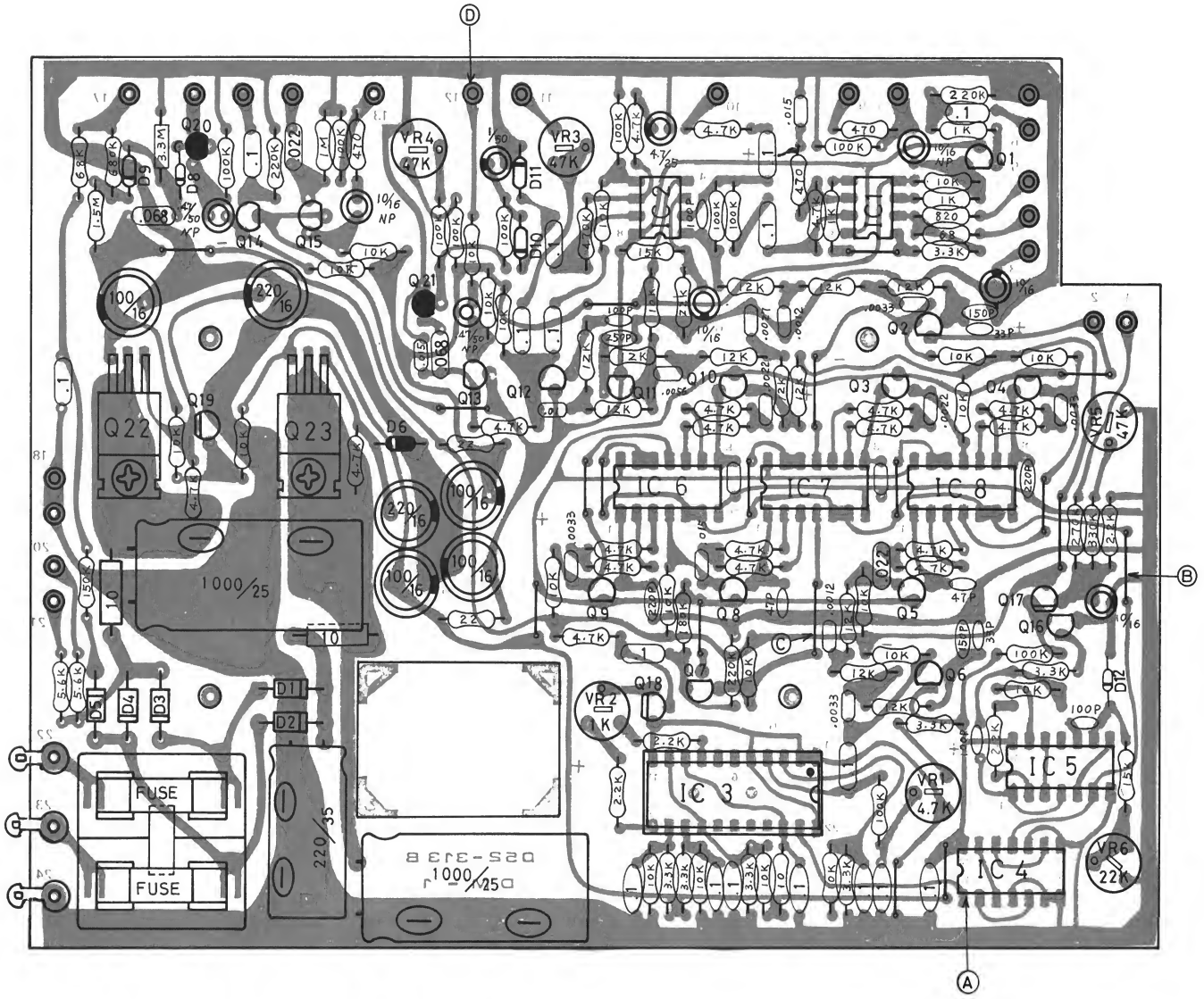
ET-31B(151-031B)

IC1, 2	uPC4558C
IC3	R5101
IC4	TC4013P
IC5	TC4069P
IC6–8	TC4016P
Q20	2SK30A-O
Q 1–16	2SC900-F
Q17–19	2SA733-Q
Q21	2SK30A-Y
Q22	2SB434-O
Q23	2SD234-O
D1–5	1N4003
D6	05Z13U or RD13EC
D7–12	1S2473 or 1S1588
IC socket	ICL-244-S7G









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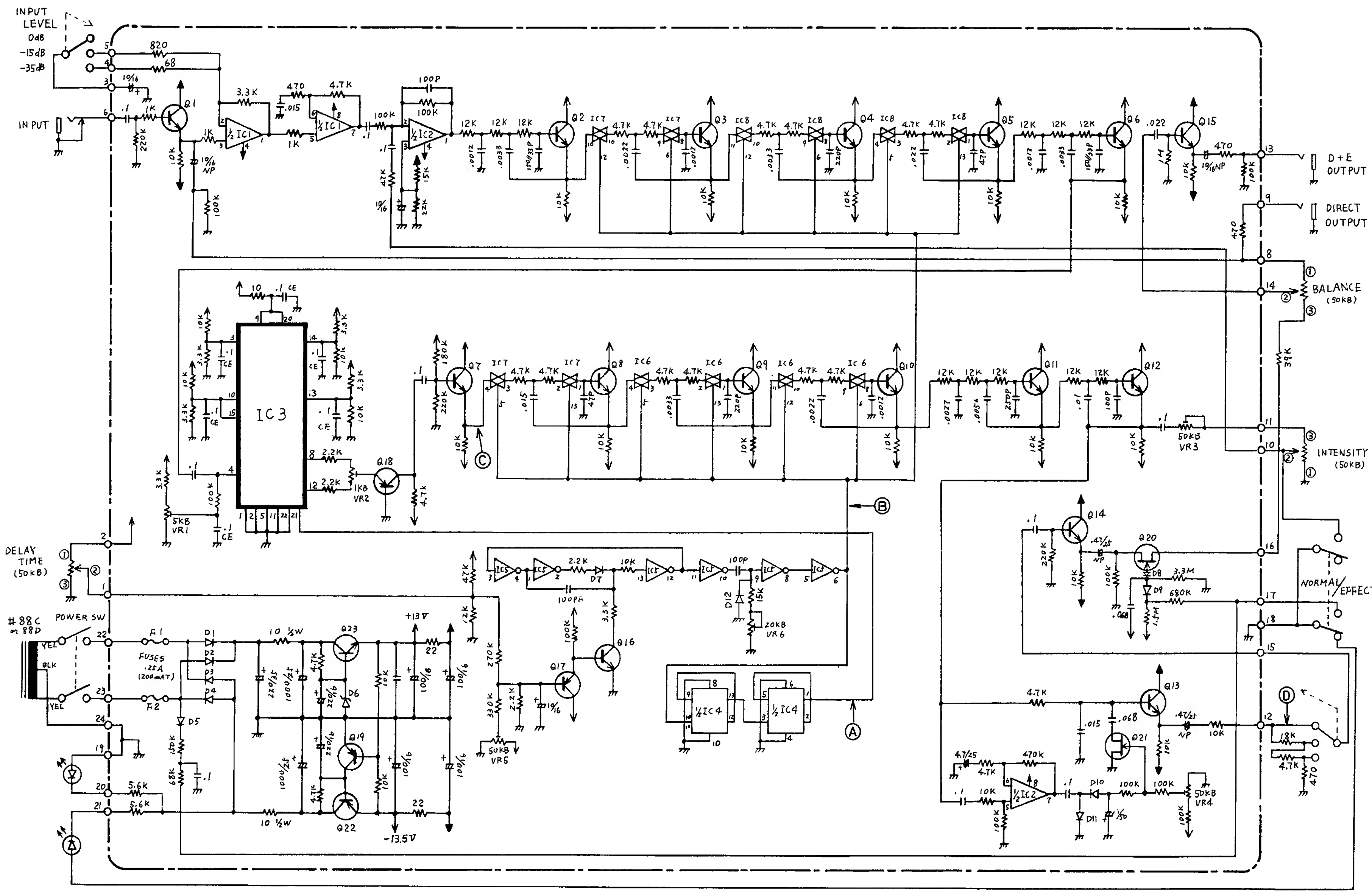

DM-1

CHECKING & ADJUSTMENT

Before starting any electrical adjustment, check the DC voltages:

+B ..... +13±0.5V at Q23 (2SD-234) E

−B ..... −13.5±0.5V at Q22 (2SB-434) E

To check or adjust	connect	to	Feed	Set	Adjust	for	Remark
Clock F Low	Scope or F Counter	PCB T.P Ⓐ			VR5 47K	125usec (8kHz)	
Clock F High					(check)	6.25usec (160kHz)	Tolerance ±10%
F. C. F Duty Ratio	Scope	Ⓑ			VR6 22K	1.6 μs	Sweep Time 5usec 5X MAG
CCD Clock Pulse Cancel 1st (1st)	Scope (AC range)	Ⓒ			VR2 1K		Coarse (Fine Adj. later)
CCD Bias	Gen	IN jack	Sine 500Hz 0dBm		VR1 4.7K		Without Distortions
	Scope	Ⓓ		(check)			
CCD Clock Pulse Cancel (2nd)	Scopce (AC range)	Ⓒ			VR2 1K		Minimize amplitude
Cutoff F	VTM	Ⓓ					
	Gen	IN jack	Sine −20dBm	b c a	(check)	Fig.1	
Noise Killer	Amp Sp	D+E jack		Effect On	VR4 47K	Rotating from FCW position, stop where noise suddenly reduces	
Intensity	Amp Mic	D+E jack	Staccato	Effect On	VR3 47K		Multiple repetitions with constant amplitude

Abbreviation

Scope ..... Oscilloscope
F ..... Frequency
Gen ..... Signal Generator
VTM ..... Voltmeter
FCW ..... Fullclockwise

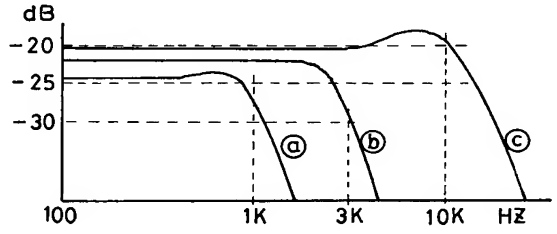

Fig.1